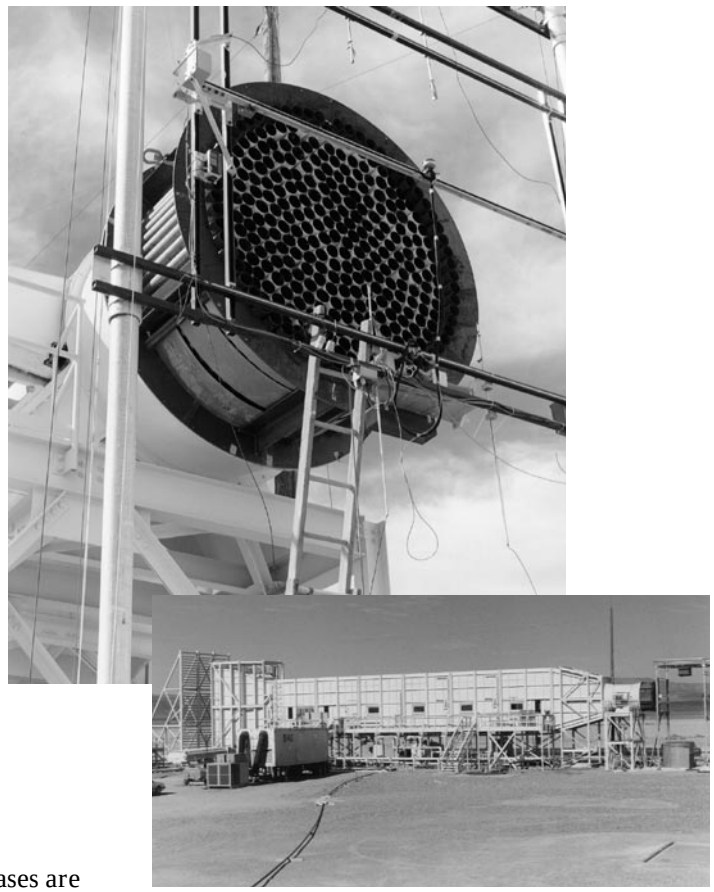
Remote Sensor Test Range (RSTR)

Controlled release of gas plumes for remote sensor evaluation

The RSTR is located at the Nevada Test Site, 60 miles north of Las Vegas. It offers a sophisticated chemical release system which produces an open air gas calibration cell of known concentration and spatial profile. With the highly stable weather conditions at the Nevada Test Site providing more useful experiment days than at any other U.S. site, the RSTR is ideal for reliable testing of remote sensors and field monitoring instruments.

The RSTR Advantages

- Safety and environmental permits are in place for many hazardous industrial chemicals
- A wide variety of chemicals or gas mixtures can be released in a short time
- Testbed for release detection plans and models
- Statistically significant measure of instrument performance.



Top: Movable gas analysers scan across the chemical plume to determine its concentration profile. Bottom: The RSTR wind tunnel produces a 2m diameter, 6m long, uniformly mixed plume at the wind tunnel exit. Remote sensors probe the "sweet spot" at the center of the plume.

APPLICATIONS

- *Environmental monitoring*
- *Industrial process monitoring*
- *Environmental impact planning and assessment*
- *Chemical release detection*
- *Battlefield hazard sensors*
- *Intelligence*

How RSTR Works

At the RSTR, test gases are injected into a wind tunnel and mixed with ambient air before being released horizontally at high velocity into the atmosphere. Gas plumes may also be generated from simulated stacks, gas containers, or from heated liquid pans. In-plume diagnostics and arrays of downwind towers characterize test gas concentrations.

Availability: The RSTR is available now.

Contact

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